

-- 93. The apparatus of claim 90 wherein the selected portion of the area comprises an area including a center of the bonded disk stack. --

-- 94. An electrical apparatus comprising:

two terminals accessible from an exterior of the electrical apparatus;

an electrical element comprising a monolithic MOV disk having an outer surface and two ends, the ends being in contact with the two terminals, the monolithic MOV having a rating of at least 6 kV; and

a reinforcing structure attached to the outer surface and constructed so as to enable the monolithic MOV to withstand at least one 100 kA impulse, wherein the reinforcing structure comprises a resin composition system of discontinuous fibers randomly dispersed in an epoxy. --

-- 95. An electrical apparatus comprising:

an electrical element comprising a bonded disk stack having an outer surface, the bonded disk stack having a rating of at least 6 kV; and

a reinforcing structure attached to the outer surface and constructed so as to enable the disk stack to withstand at least one 100 kA impulse, wherein the reinforcing structure comprises a resin composition system of discontinuous fibers randomly dispersed in an epoxy. --

-- 96. The apparatus of claim 95 wherein the fibers are oriented in a random orientation.--

REMARKS

Claims 1, 3, 5-20, 22-27 and 55-96 are pending, with claims 1, 22, 94, and 95 being independent. Claims 2, 4 and 21 have been cancelled, claims 1, 5-7, 9, 13, 17, 22, 23, and 26 have been amended, and claims 55-96 have been added by this response. In view of the foregoing amendments and the following remarks, reconsideration and allowance of this application are requested.

35 U.S.C. § 102(b) Kester Rejection

Claims 22-27 were rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Kester (U.S. Patent No. 6,008,975). This rejection, insofar as it pertains to the presently pending claims, is respectfully traversed.

Independent claim 22 is directed to an electrical apparatus and recites, among other elements, a "fiber matrix comprising a pre-woven fabric." Applicant respectfully submits that Kester is silent with regard to at least this element of claim 22.

Kester describes a surge arrester subassembly that includes electrical components stacked in an axial array and an insulative coating disposed over the outer surface of the axial array. See Kester at col. 3, ll. 18-21. The array of electrical components is stacked in an end-to-end arrangement and retained in that arrangement by an axially applied force supplied by the insulative coating. See Kester at col. 4, ll. 26-28. The coating may include resin-impregnated fiberglass tape that includes multiple fiberglass strands or bundles of strands that are arranged side by side in parallel rows. See Kester at col. 6, ll. 34-63. The coating is formed with polygonal regions that are comprised entirely of resin layers and are free from fibrous tapes. See Kester at col. 6, ll. 63-66. The polygonal regions serve as weakened wall regions through which venting may occur during component failure. See Kester at col. 10, ll. 5-10.

As such, Kester does not describe or suggest a fiber matrix comprising a pre-woven fabric, as recited in claim 22.

Claims 23-27 depend from claim 22 and are allowable for at least the reasons given for claim 22.

As Kester does not describe each and every element of claims 22-27, it cannot serve as a basis for rejection under §102. Therefore, Applicants respectfully request reconsideration and withdrawal of the rejection of claims 22-27.

35 U.S.C. § 102(b) Schmidt Rejection

Claims 1, 3, 5-13, 16-19, and 22-26 were rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Schmidt (U.S. Patent No. 5,602,710). This rejection, insofar as it pertains to the presently pending claims, is respectfully traversed.

Independent claim 1 is directed to an electrical apparatus and recites, among other elements, a "fiber matrix comprising a pre-woven fabric." Applicant respectfully submits that Schmidt is silent with regard to at least this element of claim 1.

Schmidt describes a surge arrester with at least two connection fittings held by a frame with at least one block of varistor material clamped between the connection fittings. See Schmidt at col. 1, ll. 39-41. The closed frame is designed in one piece and is fabricated from an insulating material which can spring somewhat in the axial direction. See Schmidt at col. 1, ll. 44-45; col. 2, ll. 5-57. When introducing parts such as the blocks of varistor material into the frame, it must be ensured that there are no gaps in which insulating material could penetrate during casting. See Schmidt at col. 3, ll. 30-32. The frame may be produced from a glass fiber-reinforced nylon in an injection molded process. See Schmidt at col. 3, ll. 59-62. Also, it is possible to wind the frame with the aid of a resin-impregnated glass fiber filament or tape. See Schmidt at col. 4, ll. 4-6.

As such, Schmidt does not describe or suggest a fiber matrix comprising a pre-woven fabric, as recited in claim 1.

Claims 3, 5-13 and 16-19 depend from claim 1 and are allowable for at least the reasons given for claim 1.

As described above, independent claim 22 recites, among other things, a "fiber matrix comprising a pre-woven fabric." Applicant respectfully submits that Schmidt is silent with regard to at least this element of claim 22.

Claims 23-26 depend from claim 22 and are allowable for at least the reasons given for claim 22.

As Schmidt does not describe each and every element of claims 1, 3, 5-13, 16-19, and 22-26, it cannot serve as a basis for rejection under §102. Therefore, Applicants respectfully request reconsideration and withdrawal of the rejection of claims 1, 3, 5-13, 16-19, and 22-26.

35 U.S.C. § 102(b)/§ 103(a) Kester Rejection

Claims 1, 3, and 5-20 were rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Kester or, in the alternative, were rejected under 35 U.S.C. § 103(a) as allegedly

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being unpatentable over Kester and Schmidt. This rejection, insofar as it pertains to the presently pending claims, is respectfully traversed.


Applicant requests withdrawal of the rejection of claims 1, 3, and 5-20 because, as discussed with respect to claim 1, neither Kester, Schmidt, nor any combination of the two describes or suggests a fiber matrix comprising a pre-woven fabric, as recited in claim 1. In particular, Kester does not remedy any of the deficiencies of Schmidt with respect to claim 1. It is respectfully submitted that Kester and Schmidt, either alone or in combination, do not establish a *prima facie* case of obviousness with regard to claims 1, 3, and 5-20. Accordingly, reconsideration and withdrawal of this rejection are respectfully requested.

Attached is a marked-up version of the changes being made by the current amendment.

Applicant asks that all claims be allowed. Enclosed is a \$216.00 check for excess claim fees. Please apply any other charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

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Version with markings to show changes made

In the claims:

Claims 2, 4 and 21 have been cancelled.

Claims 1, 5-7, 9, 13, 17, 22-23, and 26 have been amended as follows:

1. An electrical apparatus comprising:

two terminals accessible from an exterior of the electrical apparatus;

an electrical element comprising a monolithic MOV disk having an outer surface and two ends, the ends being in contact with the two terminals, the monolithic MOV having a rating of at least 6 kV; and

a reinforcing structure attached to the outer surface and constructed so as to enable the monolithic MOV to withstand at least one 100 kA impulse, wherein the reinforcing structure comprises a fiber matrix pre-impregnated with a resin, the fiber matrix comprising a pre-woven fabric.

5. The apparatus of claim 1 wherein the fibers in the fiber matrix are oriented in a predetermined orientation with respect to an axis of the electrical element.

6. The apparatus of claim [1] 5 wherein the fibers in the fiber matrix are oriented parallel to **[an]** the axis **[of the electrical element]**.

7. The apparatus of claim [1] 94 wherein the fibers segments **[in the fiber matrix]** are oriented in a random orientation.

9. **[t]**The apparatus of claim 1 wherein the fibers in the fiber matrix are of a non-uniform length.

13. The apparatus of claim 12 wherein the fiber matrix is applied circumferentially such that the fibers have a predetermined orientation at a predetermined angle with respect to an axis of the electrical element.

17. The apparatus of claim 1 wherein the **[pre-impregnated]** fiber matrix is applied vertically.

22. An electrical apparatus comprising:
an electrical element comprising a bonded disk stack having an outer surface, the bonded disk stack having a rating of at least 6 kV; and
a reinforcing structure attached to the outer surface and constructed so as to enable the bonded disk stack to withstand at least one 100 kA impulse, wherein the reinforcing structure comprises a fiber matrix pre-impregnated with a resin, the fiber matrix comprising a pre-woven fabric.

23. The apparatus of claim 22 wherein the bonded disk stack comprises more than **[one]** two MOV disks.

26. The apparatus of claim 22 wherein the **[pre-impregnated]** fiber matrix is applied vertically.